

ABSTRACT OF THE DISCLOSURE

Disclosed is a method for inhibiting, stimulating, modulating, or regulating glutamate reuptake. The method makes use of compounds that are ligands of glutamate receptors, including many agonists, or antagonists of glutamate receptors. It has been discovered that such compounds can bind to or modulate glutamate transporters and affect extracellular glutamate levels by affecting transporter activity. The disclosed compounds can have a variety of effects on glutamate transporter activity including activation or inhibition. Such compounds are useful to treat various neurological diseases and conditions involving glutamate transporter and glutamate receptor activation. For example, excess extracellular glutamate is a cause of excessive activation of glutamate receptors. Stimulating glutamate reuptake by glutamate transporters can ameliorate excessive activation of glutamate receptors by reducing the extracellular glutamate concentration. Prodrug forms of transporter compounds can be used as drugs.